ABSTRACT OF THE DISCLOSURE

A method for preparation of a solid state electrochemical device having a cathode, and anode and an electrolyte positioned between the cathode and the anode is disclosed, comprising the steps of forming a controlled geometry feedrod having a cross sectional area, having at least a first extrusion compound and a second extrusion compound, and co-extruding the controlled geometry feedrod through a reduction die at least once to achieve a desired reduction in cross sectional area. Such microfabrication by thermoplastic co-extrusion enhances production of complex and multiphase electrodes and electrolytes.